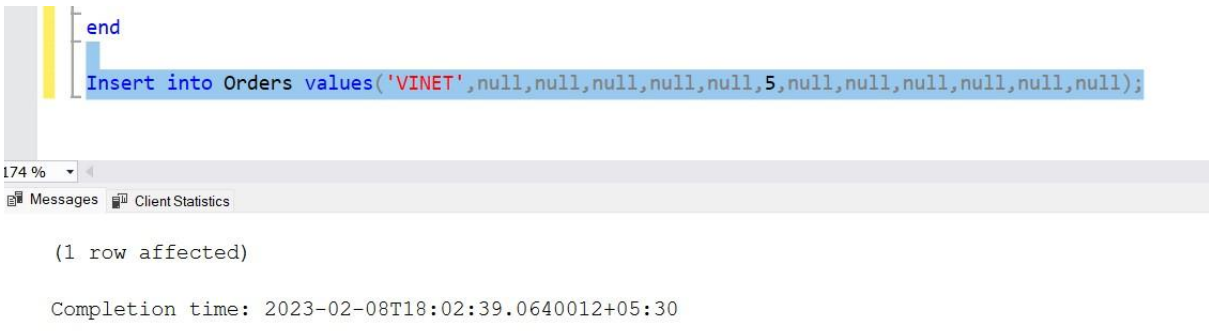
Query 1 :

Create a stored procedure in the Northwind database that will calculate the average value of Freight for a specified customer.Then, a business rule will be added that will be triggered before every Update and Insert command in the Orders controller,and will use the stored procedure to verify that the Freight does not exceed the average freight. If it does, a message will be displayed and the command will be cancelled.

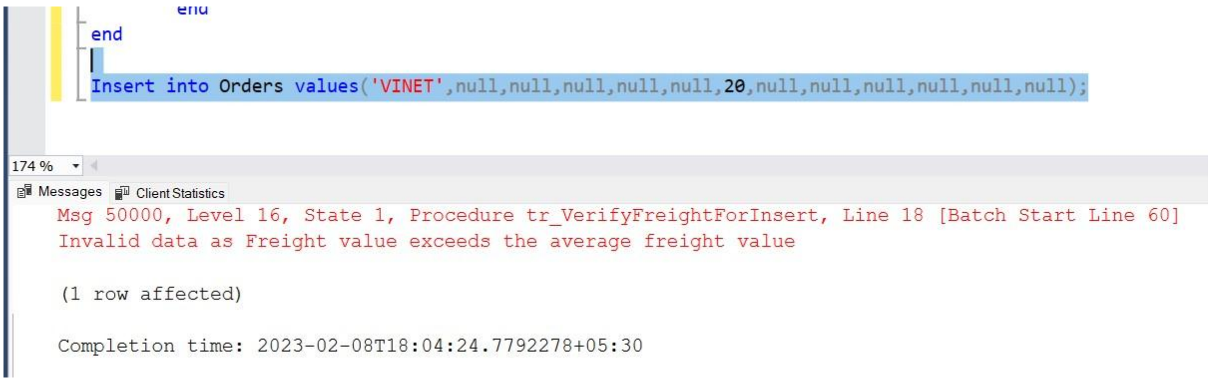
```
ALTER procedure sp_ValidateFreight
   -- inputted customer
   @CustomerID nvarchar(5),
   -- returned average freight
   @AverageFreight money output
as
begin
  select @AverageFreight = AVG(Freight)
  from Orders
  where CustomerID = @CustomerID
end
go

Declare @AvgFreight int;
execute sp_ValidateFreight VINET, @AvgFreight output;
Print @AvgFreight

Create trigger tr_VerifyFreightForInsert
on Orders
Instead of insert
as
begin
        Declare @AvgFreightOfOrders money
        Declare @CustID nchar(5)
        Declare @Freight money
        Select @CustId=CustomerID from inserted
        Select @Freight=Freight from inserted
        -- execute stored procedure
        exec sp_ValidateFreight @CustID,
                @AverageFreight = @AvgFreightOfOrders output
        -- check the freight
                if @AvgFreightOfOrders is not null
                        and @AvgFreightOfOrders < @Freight
                begin
                        Raiserror('Invalid data as Freight value exceeds the average freight
value',16,1)
                        return
```

```
                    end
end

Create trigger tr_VerifyFreightForUpdate
on Orders
Instead of update
as
begin
          Declare @AvgFreightOfOrders money
          Declare @CustID nchar(5)
          Declare @Freight money
          Select @CustId=CustomerID from inserted
          Select @Freight=Freight from inserted
          -- execute stored procedure
          exec sp_ValidateFreight @CustID,
                    @AverageFreight = @AvgFreightOfOrders output
          -- check the freight
                    if @AvgFreightOfOrders is not null
                              and @AvgFreightOfOrders < @Freight
                    begin
                              Raiserror('Invalid data as Freight value exceeds the average freight
value',16,1)
                              return
                    end
end

Insert into Orders values('VINET',null,null,null,null,null,20,null,null,null,null,null,null);
```



```
end

Insert into Orders values('VINET',null,null,null,null,null,5,null,null,null,null,null,null);
```

```
(1 row affected)

Completion time: 2023-02-08T18:02:39.0640012+05:30
```



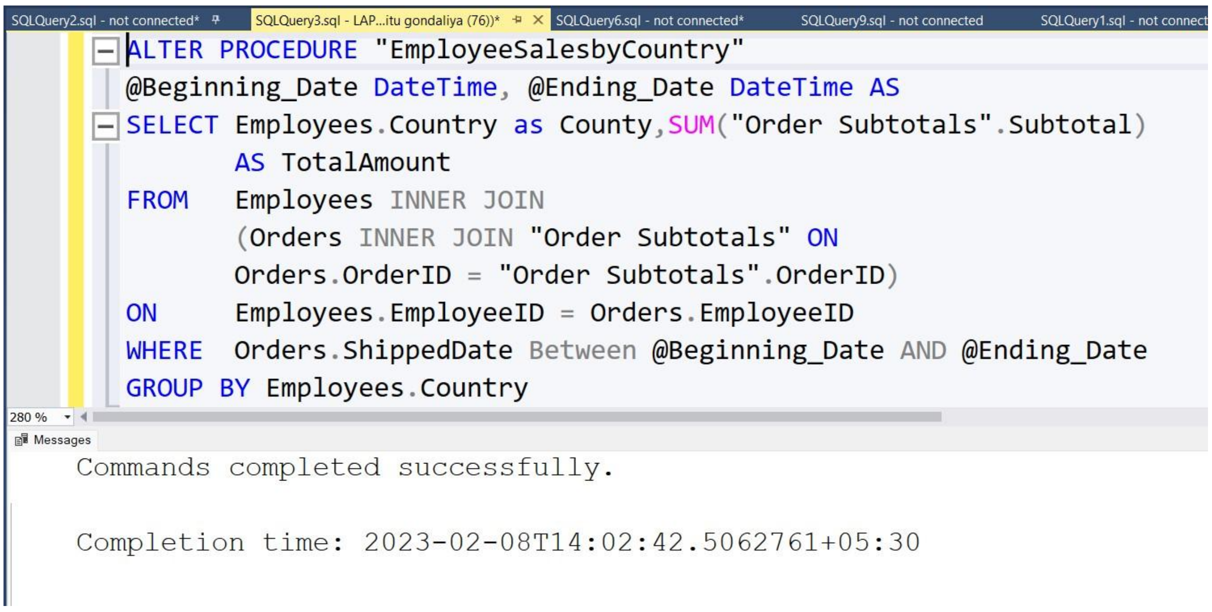
```
        end
end

Insert into Orders values('VINET',null,null,null,null,null,20,null,null,null,null,null,null);
```

```
Msg 50000, Level 16, State 1, Procedure tr_VerifyFreightForInsert, Line 18 [Batch Start Line 60]
Invalid data as Freight value exceeds the average freight value

(1 row affected)

Completion time: 2023-02-08T18:04:24.7792278+05:30
```

Query 2 :

write a SQL query to Create Stored procedure in the Northwind database to retrieve
Employee Sales by Country */

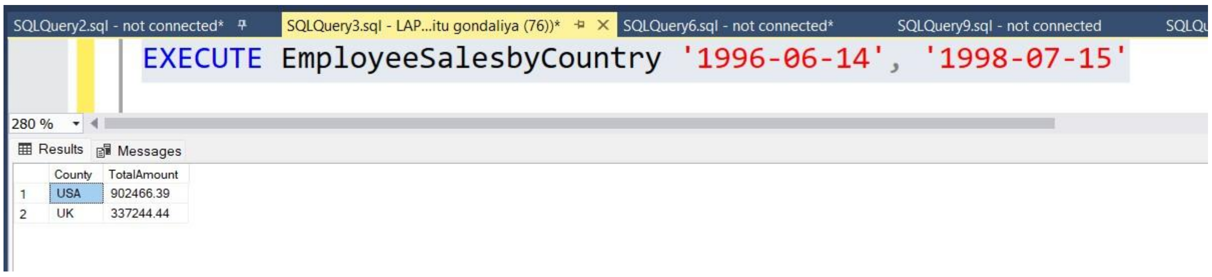
```
ALTER PROCEDURE "EmployeeSalesbyCountry"
@Beginning_Date DateTime, @Ending_Date DateTime AS
SELECT Employees.Country as County,SUM("Order Subtotals".Subtotal)
      AS TotalAmount
FROM   Employees INNER JOIN
      (Orders INNER JOIN "Order Subtotals" ON
            Orders.OrderID = "Order Subtotals".OrderID)
ON     Employees.EmployeeID = Orders.EmployeeID
WHERE  Orders.ShippedDate Between @Beginning_Date AND @Ending_Date
GROUP BY Employees.Country
```


SQLQuery2.sql - not connected*
SQLQuery3.sql - LAP...itu gondaliya (76))*
SQLQuery6.sql - not connected*
SQLQuery9.sql - not connected
SQLQuery1.sql - not connect
280 %
Messages

```
ALTER PROCEDURE "EmployeeSalesbyCountry"
@Beginning_Date DateTime, @Ending_Date DateTime AS
SELECT Employees.Country as County,SUM("Order Subtotals".Subtotal)
       AS TotalAmount
FROM   Employees INNER JOIN
       (Orders INNER JOIN "Order Subtotals" ON
       Orders.OrderID = "Order Subtotals".OrderID)
ON     Employees.EmployeeID = Orders.EmployeeID
WHERE  Orders.ShippedDate Between @Beginning_Date AND @Ending_Date
GROUP BY Employees.Country
```

```
Commands completed successfully.

Completion time: 2023-02-08T14:02:42.5062761+05:30
```

```
EXECUTE EmployeeSalesbyCountry '1996-06-14', '1998-07-15'
```



SQLQuery2.sql - not connected*   SQLQuery3.sql - LAP...itu gondaliya (76))*   SQLQuery6.sql - not connected*   SQLQuery9.sql - not connected   SQLQu

```
EXECUTE EmployeeSalesbyCountry '1996-06-14', '1998-07-15'
```

280 %

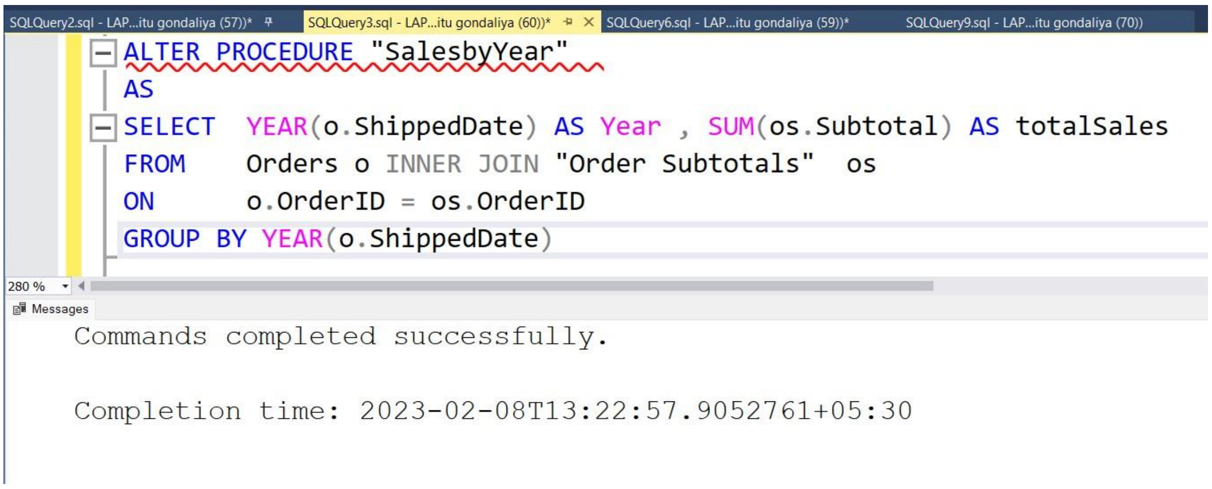
Results   Messages

	County	TotalAmount
1	USA	902466.39
2	UK	337244.44

Query 3 :

write a SQL query to Create Stored procedure in the Northwind database to retrieve Sales by Year */

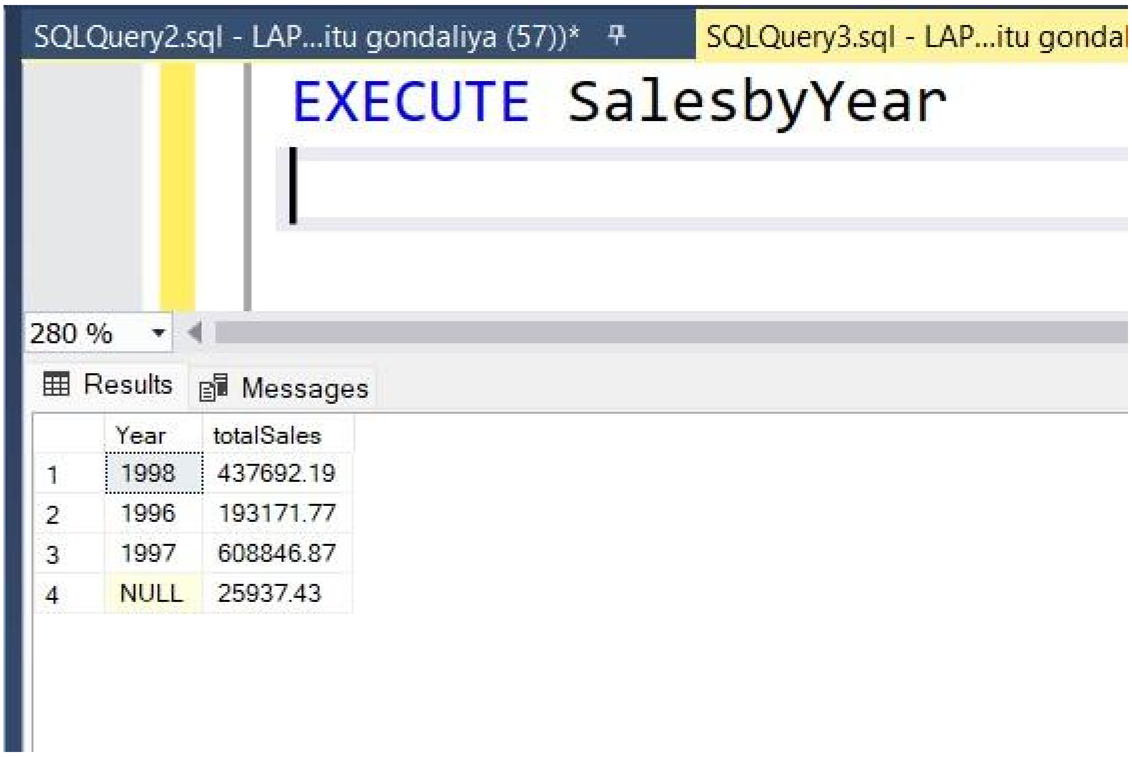
```
ALTER PROCEDURE "SalesbyYear"
AS
SELECT  YEAR(o.ShippedDate) AS Year , SUM(os.Subtotal) AS totalSales
FROM    Orders o INNER JOIN "Order Subtotals"  os
ON      o.OrderID = os.OrderID
GROUP BY YEAR(o.ShippedDate)
```


SQLQuery2.sql - LAP...itu gondaliya (57))*
SQLQuery3.sql - LAP...itu gondaliya (60))*
SQLQuery6.sql - LAP...itu gondaliya (59))*
SQLQuery9.sql - LAP...itu gondaliya (70))
280 %
Messages

```
ALTER PROCEDURE "SalesbyYear"
AS
SELECT  YEAR(o.ShippedDate) AS Year , SUM(os.Subtotal) AS totalSales
FROM    Orders o INNER JOIN "Order Subtotals"  os
ON      o.OrderID = os.OrderID
GROUP BY YEAR(o.ShippedDate)
```

```
Commands completed successfully.

Completion time: 2023-02-08T13:22:57.9052761+05:30
```

EXECUTE SalesbyYear


SQLQuery2.sql - LAP...itu gondaliya (57))*

SQLQuery3.sql - LAP...itu gondal

```
EXECUTE SalesbyYear
```

280 %

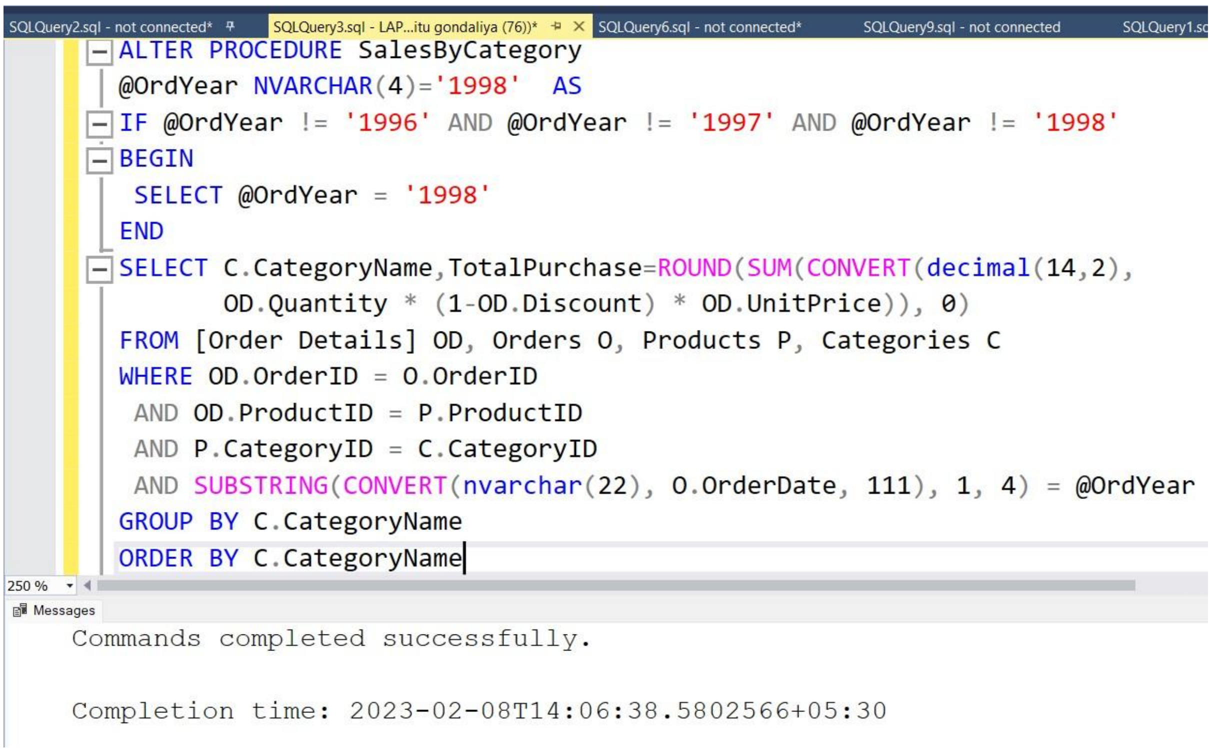
Results | Messages

	Year	totalSales
1	1998	437692.19
2	1996	193171.77
3	1997	608846.87
4	NULL	25937.43

Query 4 :

write a SQL query to Create Stored procedure in the Northwind database to retrieve Sales By Category */

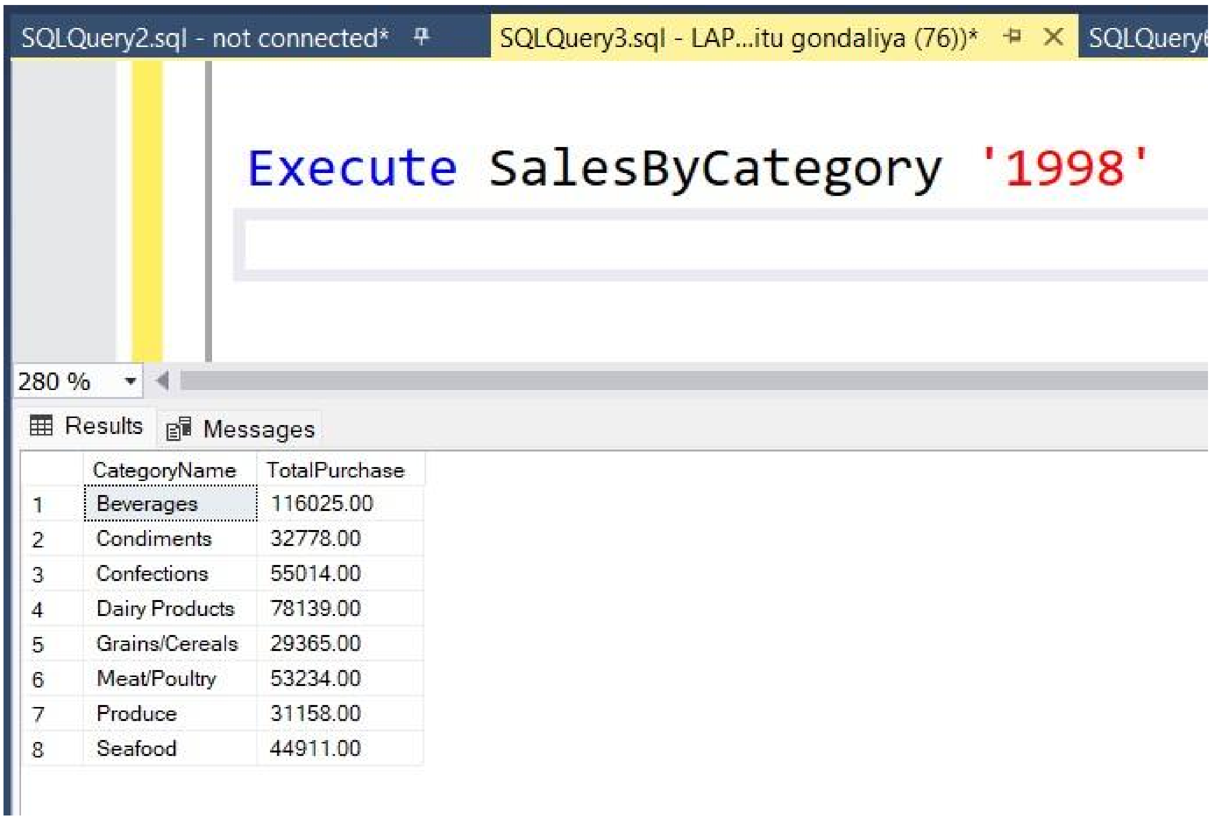
```
ALTER PROCEDURE SalesByCategory
@OrdYear NVARCHAR(4)='1998'  AS
IF @OrdYear != '1996' AND @OrdYear != '1997' AND @OrdYear != '1998'
BEGIN
 SELECT @OrdYear = '1998'
END
SELECT C.CategoryName,TotalPurchase=ROUND(SUM(CONVERT(decimal(14,2),
       OD.Quantity * (1-OD.Discount) * OD.UnitPrice)), 0)
FROM [Order Details] OD, Orders O, Products P, Categories C
WHERE OD.OrderID = O.OrderID
 AND OD.ProductID = P.ProductID
 AND P.CategoryID = C.CategoryID
 AND SUBSTRING(CONVERT(nvarchar(22), O.OrderDate, 111), 1, 4) = @OrdYear
GROUP BY C.CategoryName
ORDER BY C.CategoryName
```


SQLQuery2.sql - not connected*
SQLQuery3.sql - LAP...itu gondaliya (76))*
SQLQuery6.sql - not connected*
SQLQuery9.sql - not connected
250 %
Messages

```
ALTER PROCEDURE SalesByCategory
@OrdYear NVARCHAR(4)='1998'   AS
IF @OrdYear != '1996' AND @OrdYear != '1997' AND @OrdYear != '1998'
BEGIN
 SELECT @OrdYear = '1998'
END
SELECT C.CategoryName,TotalPurchase=ROUND(SUM(CONVERT(decimal(14,2),
       OD.Quantity * (1-OD.Discount) * OD.UnitPrice)), 0)
FROM [Order Details] OD, Orders O, Products P, Categories C
WHERE OD.OrderID = O.OrderID
 AND OD.ProductID = P.ProductID
 AND P.CategoryID = C.CategoryID
 AND SUBSTRING(CONVERT(nvarchar(22), O.OrderDate, 111), 1, 4) = @OrdYear
GROUP BY C.CategoryName
ORDER BY C.CategoryName
```

```
Commands completed successfully.

Completion time: 2023-02-08T14:06:38.5802566+05:30
```

Execute SalesByCategory '1998'


SQLQuery2.sql - not connected*
SQLQuery3.sql - LAP...itu gondaliya (76))*
280 %
Results
Messages

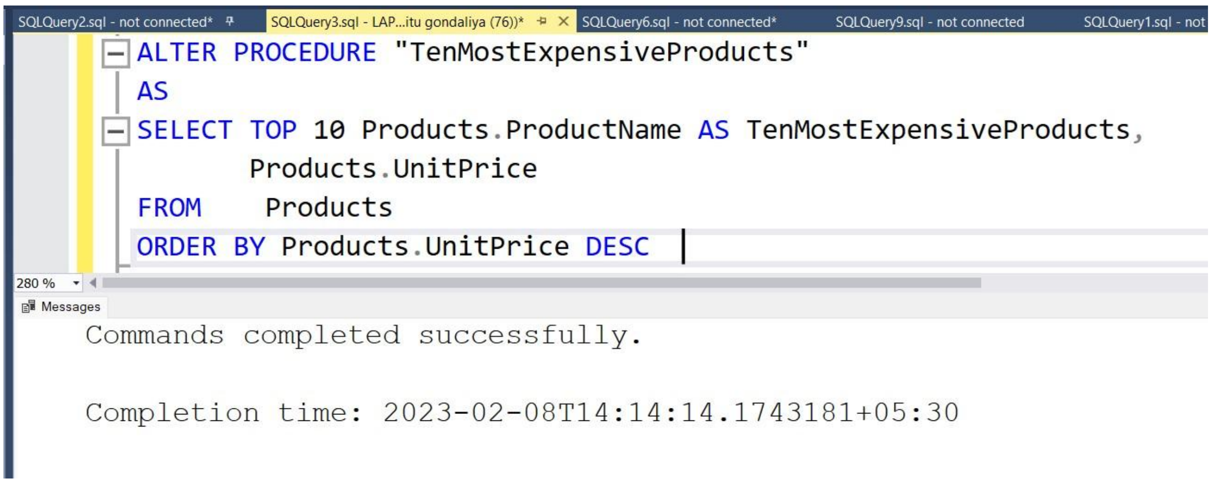
```sql
Execute SalesByCategory '1998'
```

	CategoryName	TotalPurchase
1	Beverages	116025.00
2	Condiments	32778.00
3	Confections	55014.00
4	Dairy Products	78139.00
5	Grains/Cereals	29365.00
6	Meat/Poultry	53234.00
7	Produce	31158.00
8	Seafood	44911.00

Query 5 :

write a SQL query to Create Stored procedure in the Northwind database to retrieve Ten Most Expensive Products */

```
ALTER PROCEDURE "TenMostExpensiveProducts"
AS
SELECT TOP 10 Products.ProductName AS TenMostExpensiveProducts,
      Products.UnitPrice
FROM    Products
ORDER BY Products.UnitPrice DESC
```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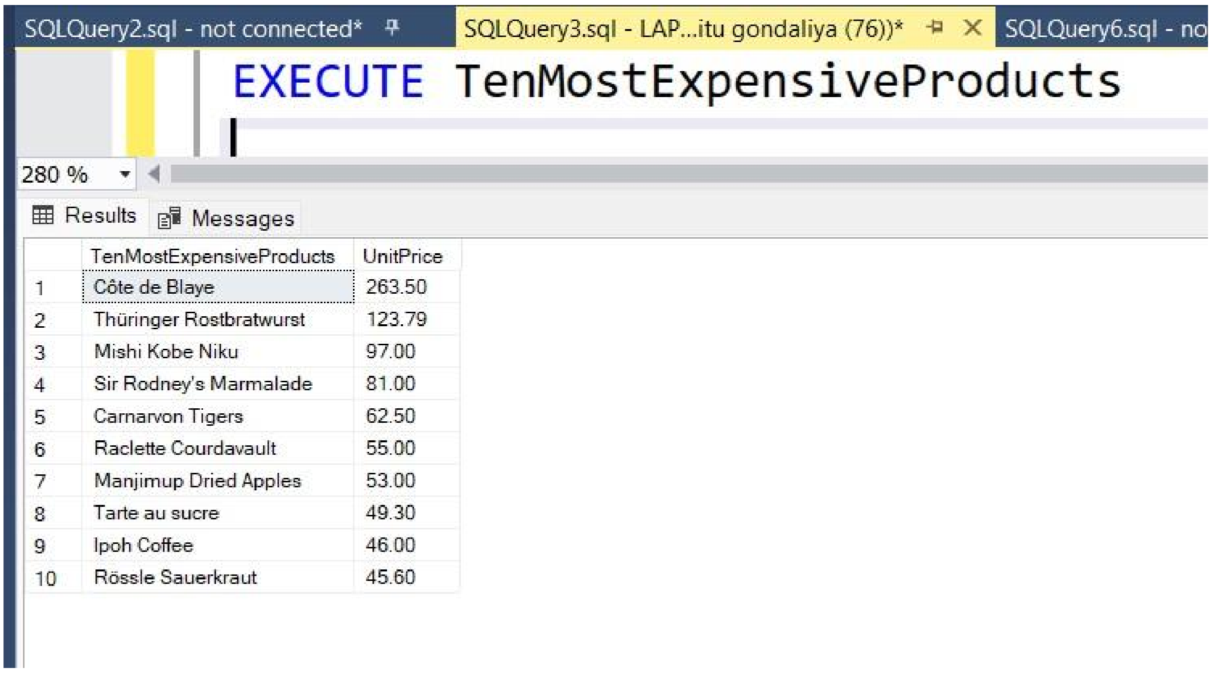
SQLQuery3.sql - LAP...itu gondaliya (76))*
SQLQuery6.sql - not connected*
SQLQuery9.sql - not connected
SQLQuery1.sql - not
280 %
Messages

```
ALTER PROCEDURE "TenMostExpensiveProducts"
AS
SELECT TOP 10 Products.ProductName AS TenMostExpensiveProducts,
       Products.UnitPrice
FROM    Products
ORDER BY Products.UnitPrice DESC
```

```
Commands completed successfully.

Completion time: 2023-02-08T14:14:14.1743181+05:30
```

EXECUTE TenMostExpensiveProducts


SQLQuery2.sql - not connected*
SQLQuery3.sql - LAP...itu gondaliya (76))*
SQLQuery6.sql - no
280 %
Results
Messages

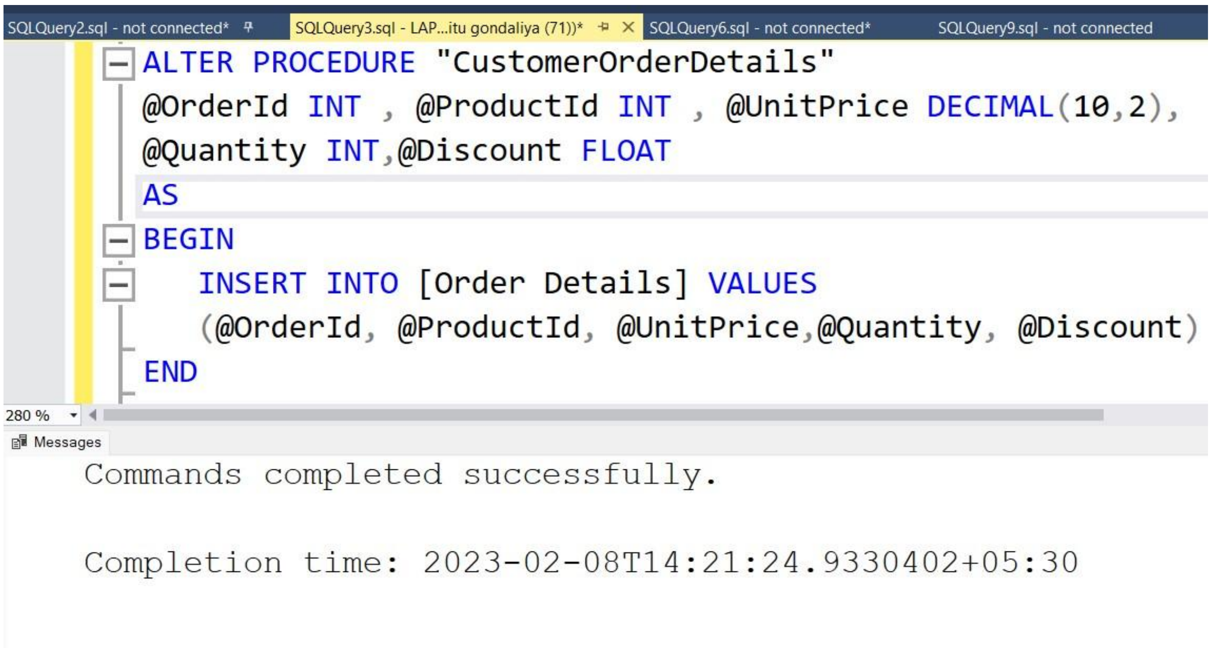
```
EXECUTE TenMostExpensiveProducts
```

	TenMostExpensiveProducts	UnitPrice
1	Côte de Blaye	263.50
2	Thüringer Rostbratwurst	123.79
3	Mishi Kobe Niku	97.00
4	Sir Rodney's Marmalade	81.00
5	Carnarvon Tigers	62.50
6	Raclette Courdavault	55.00
7	Manjimup Dried Apples	53.00
8	Tarte au sucre	49.30
9	Ipoh Coffee	46.00
10	Rössle Sauerkraut	45.60

Query 6 :

write a SQL query to Create Stored procedure in the Northwind database to insert Customer Order Details*/

```
ALTER PROCEDURE "CustomerOrderDetails"
@OrderId INT , @ProductId INT , @UnitPrice FLOAT,
@Quantity INT,@Discount FLOAT
AS
BEGIN
  INSERT INTO [Order Details] VALUES
  (@OrderId, @ProductId, @UnitPrice,@Quantity, @Discount)
END
```

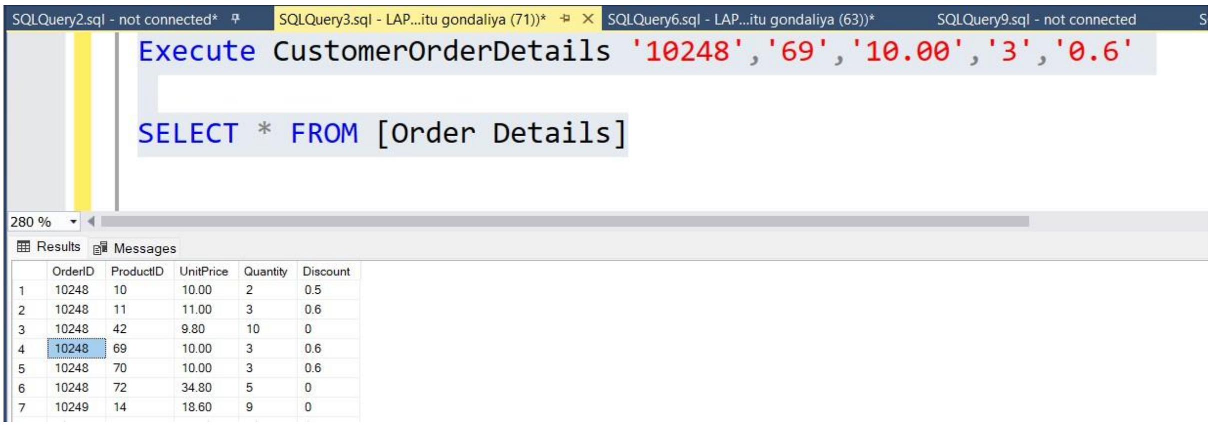

SQLQuery2.sql - not connected*
SQLQuery3.sql - LAP...itu gondaliya (71))*
SQLQuery6.sql - not connected*
SQLQuery9.sql - not connected
280 %
Messages

```
ALTER PROCEDURE "CustomerOrderDetails"
@OrderId INT , @ProductId INT , @UnitPrice DECIMAL(10,2),
@Quantity INT,@Discount FLOAT
AS
BEGIN
   INSERT INTO [Order Details] VALUES
   (@OrderId, @ProductId, @UnitPrice,@Quantity, @Discount)
END
```

```
Commands completed successfully.

Completion time: 2023-02-08T14:21:24.9330402+05:30
```

Execute CustomerOrderDetails '10248','69','10.00','3','0.6'

SELECT * FROM [Order Details]


SQLQuery2.sql - not connected*
SQLQuery3.sql - LAP...itu gondaliya (71))*
SQLQuery6.sql - LAP...itu gondaliya (63))*
SQLQuery9.sql - not connected
280 %
Results
Messages

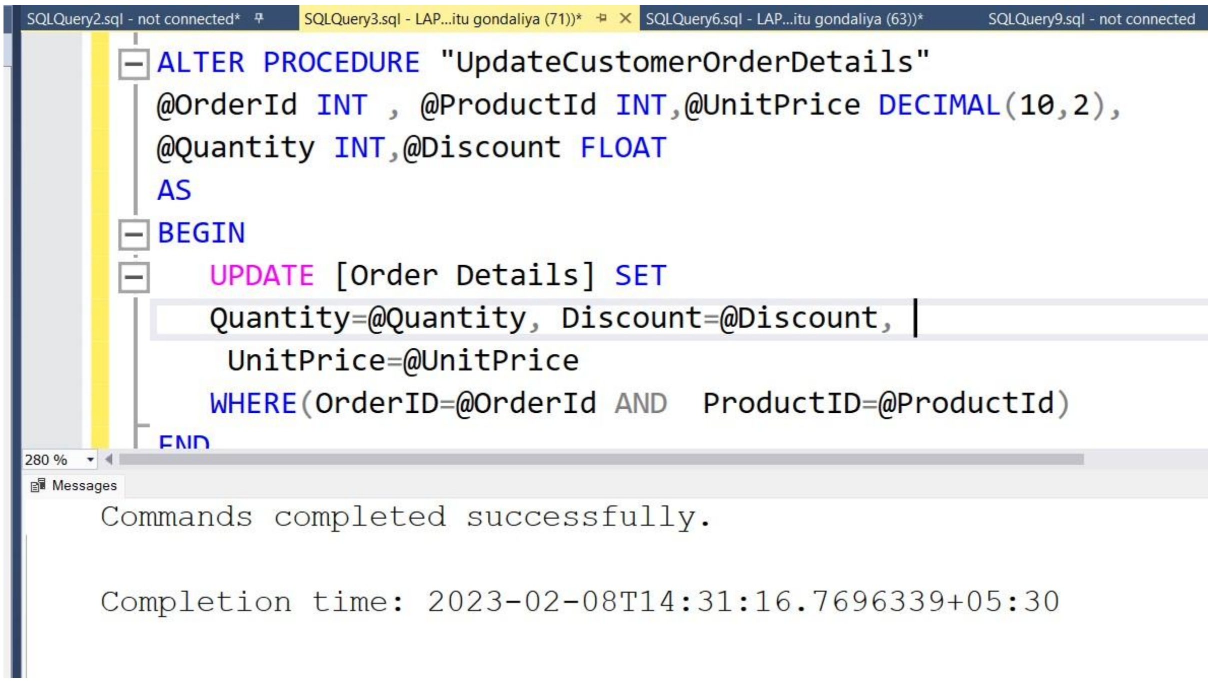
```
Execute CustomerOrderDetails '10248','69','10.00','3','0.6'

SELECT * FROM [Order Details]
```

	OrderID	ProductID	UnitPrice	Quantity	Discount
1	10248	10	10.00	2	0.5
2	10248	11	11.00	3	0.6
3	10248	42	9.80	10	0
4	10248	69	10.00	3	0.6
5	10248	70	10.00	3	0.6
6	10248	72	34.80	5	0
7	10249	14	18.60	9	0

*Query 7 :

write a SQL query to Create Stored procedure in the Northwind database to update Customer Order Details*/

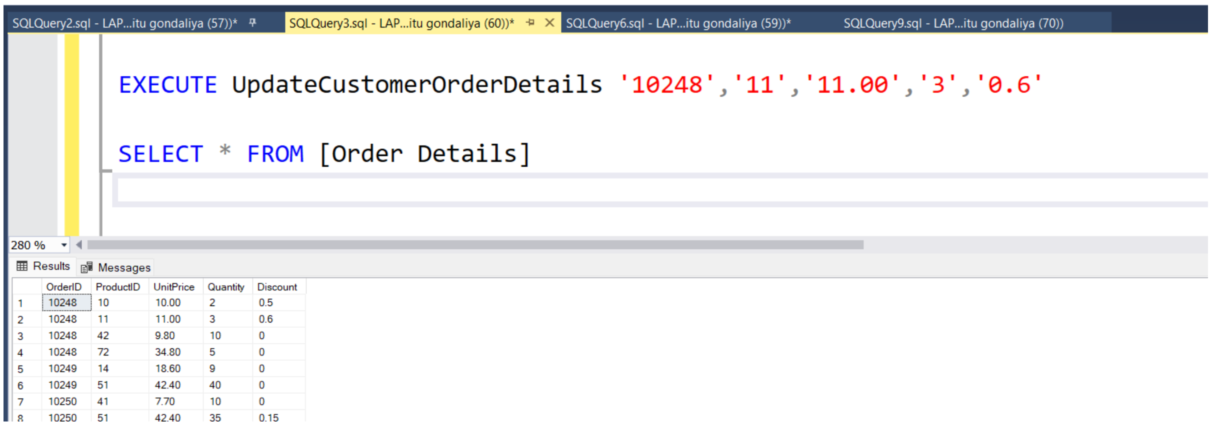
```
ALTER PROCEDURE "UpdateCustomerOrderDetails"
@OrderId INT , @ProductId INT,@UnitPrice DECIMAL(10,2),
@Quantity INT,@Discount FLOAT
AS
BEGIN
   UPDATE [Order Details] SET
   Quantity=@Quantity, Discount=@Discount,
    UnitPrice=@UnitPrice
   WHERE(OrderID=@OrderId AND  ProductID=@ProductId)
END
```


SQLQuery2.sql - not connected*
SQLQuery3.sql - LAP...itu gondaliya (71))*
SQLQuery6.sql - LAP...itu gondaliya (63))*
SQLQuery9.sql - not connected
280 %
Messages

```
ALTER PROCEDURE "UpdateCustomerOrderDetails"
@OrderId INT , @ProductId INT,@UnitPrice DECIMAL(10,2),
@Quantity INT,@Discount FLOAT
AS
BEGIN
   UPDATE [Order Details] SET
   Quantity=@Quantity, Discount=@Discount,
    UnitPrice=@UnitPrice
   WHERE(OrderID=@OrderId AND  ProductID=@ProductId)
END
```

```
Commands completed successfully.

Completion time: 2023-02-08T14:31:16.7696339+05:30
```

```
EXECUTE UpdateCustomerOrderDetails '10248','11','11.00','3','0.6'

SELECT * FROM [Order Details]
```



```
EXECUTE UpdateCustomerOrderDetails '10248','11','11.00','3','0.6'

SELECT * FROM [Order Details]
```

	OrderID	ProductID	UnitPrice	Quantity	Discount
1	10248	10	10.00	2	0.5
2	10248	11	11.00	3	0.6
3	10248	42	9.80	10	0
4	10248	72	34.80	5	0
5	10249	14	18.60	9	0
6	10249	51	42.40	40	0
7	10250	41	7.70	10	0
8	10250	51	42.40	35	0.15